

$$* N(v) = 4\pi N \left(\frac{m}{2\pi kT} \right)^{3/2} v^2 e^{-mv^2/2kT}$$

; $N(v)dv$ = No. of molecules in gas having speeds between v and $(v+dv)$

T = absolute temperature of gas

m = mass of molecule

k = Boltzmann's constant

* Ideal gas equation:-

$$PV = nRT$$

$$* PV = \frac{1}{3} mN \bar{v}^2$$

P = Pressure of gas

V = Volume of gas

T = Temperature of gas

n = number of moles of gas

R = Gas constant

m = mass of gas molecule

N = number of molecules of gas

\bar{v} = RMS speed